

Perform all crushing or breaking up necessary to meet the size requirements before the material is placed on the road.

A grading range on material being shipped to Department Projects may be established as a guide to verify consistency of the product.

Do not use inorganic mineral ash that contains extremely hard pieces of material retained on the 2-inch (50 mm) sieve when they are considered deleterious to the clipping and finishing of the base material when placed on the roadway.

#### **B. Fabrication**

General Provisions 101 through 150.

#### **C. Acceptance**

Test as follows:

<b>Test</b>	<b>Method</b>
Sieve Analysis	AASHTO T 27
Class C Fly Ash	AASHTO M 295
Available Lime Index	ASTM C 25

#### **D. Materials Warranty**

General Provisions 101 through 150.

## **Section 816—Soil Aggregate Bases**

### **816.1 General Description**

This section includes the requirements for material to be used as soil aggregate base.

#### **816.1.01 Related References**

##### **A. Standard Specifications**

Section 815—Graded Aggregate

##### **B. Referenced Documents**

AASHTO T 89

AASHTO T 90

GDT 4

GDT 6

GDT 7

GDT 13

### **816.2 Materials**

#### **816.2.01 Soil Aggregate**

##### **A. Requirements**

##### **1. Type**

Use a soil aggregate base, subbase, or shoulder base course material that is of uniform quality.

##### **2. Material Retained on No. 10 (2 mm) sieve**

Ensure the material retained on the No. 10 (2 mm) sieve meets the requirements of Subsection 815.2.01.A.

**NOTE: You may substitute Group I graded aggregate base that meets the requirements of Subsection 815.2.01.A for soil aggregate base.**

## 3. Gradation

Ensure the soil aggregate base, subbase, or shoulder material meets the following gradation:

Size	Percent by Weight
Passing 2 in (50 mm) sieve	100
Passing 1-1/2 in (37.5 mm) sieve	95-100
Passing 3/4 in (19 mm) sieve	60-97
Passing No. 10 (2 mm) sieve	25-55
Material passing No. 10 (2 mm) sieve	
Passing No. 10 (2 mm) sieve	100
Passing No. 60 (250 µm) sieve	15-85
Passing No. 200 (75 µm) sieve (silt less clay)	3-25
Clay (8 minutes suspension on elutriation test)	10-25

- Ensure that the material passing the No. 10 (2 mm) sieve has a total volume change of 15 or less.
- Ensure that the material passing the No. 40 (425 µm) sieve has a Liquid Limit (LL) of 25 or less and a Plasticity Index (PI) of 9 or less.

**B. Fabrication**

General Provisions 101 through 150.

**C. Acceptance**

Test as follows:

Test	Method
Gradation	GDT 4 and GDT 13
Volume change	GDT 6
Liquid limit	AASHTO T 89
Plastic limit and plasticity index	AASHTO T 90

**D. Materials Warranty**

General Provisions 101 through 150.

**816.2.02 Soil Mortar for Soil Aggregate Base****A. Requirements**

Use a soil mortar for soil aggregate bases of friable materials meeting these requirements:

Percent passing No. 200 (75 µm) sieve	0-65
Volume change	0-15
Maximum dry density	95 lb/ft <sup>3</sup> + (1520 kg/m <sup>3</sup> +)

**B. Fabrication**

General Provisions 101 through 150.

**C. Acceptance**

Test as follows:

Test	Method
Gradation	GDT 4
Volume change	GDT 6
Maximum dry density	GDT 7

**D. Materials Warranty**

General Provisions 101 through 150.

## **Section 817—Shoulder Material**

**817.1 General Description**

This section includes the requirements for material used in shoulder construction.

**817.1.01 Related References****A. Standard Specifications**

Section 810—Roadway Materials

**B. Referenced Materials**

General Provisions 101 through 150.

**817.2 Materials****817.2.01 Select Shoulder Material****A. Requirements**

Unless otherwise shown on the Plans or in the Special Provisions, use shoulder material that meets the requirements in Subsection 810.2.01.A.1 for Class I soil.

**B. Fabrication**

General Provisions 101 through 150.

**C. Acceptance**

See Subsection 810.2.01.C.

**D. Materials Warranty**

General Provisions 101 through 150.

## **Section 818—Crushed Aggregate Subbase**

**818.1 General Description**

Specifications for this work will be included elsewhere in the Contract.